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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/091,080	03/05/2002	William J. Hunt	57080US002	6723
32692	7590	12/23/2005	EXAMINER	
3M INNOVATIVE PROPERTIES COMPANY			BERNATZ, KEVIN M	
PO BOX 33427			ART UNIT	
ST. PAUL, MN 55133-3427			PAPER NUMBER	
			1773	
DATE MAILED: 12/23/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/091,080

Applicant(s)

HUNT ET AL.

Examiner

Kevin M. Bernatz

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 10-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 10-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☒ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. 12202005.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Response to Amendment***

1. Amendments to the specification and claims 1, 13, 14, 17 and 19, filed on October 17, 2005, have been entered in the above-identified application.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### ***Claim Rejections - 35 USC § 102***

3. Claims 1 – 4, 7, 8, 10 – 12 and 16 – 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Kendall et al. (U.S. Patent No. 6,848,986 B2) – **and** –
4. Claims 1 – 4, 7, 8, 10 – 12 and 16 – 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Kendall et al. (U.S. Patent App. No. 2003/0194961 A1). The Examiner notes that '961 A1 is the Published Application of Patent '986 B2. Both of these rejections are maintained for the reasons of record as set forth in Paragraph No.'s 10 and 11 of the Office Action mailed on June 16, 2005.
5. Claims 1 – 4, 7, 8, 10 – 12 and 16 – 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Kendall et al. (U.S. Patent App. No. 2003/0024169 A1) for the reasons of record as set forth in Paragraph No. 12 of the Office Action mailed on June 16, 2005.

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6. Claims 1 – 4, 7, 8, 10 – 12 and 16 – 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Kendall et al. (U.S. Patent App. No. 2003/0017797 A1) for the reasons of record as set forth in Paragraph No. 13 of the Office Action mailed on June 16, 2005.

***Claim Rejections - 35 USC § 103***

7. Claims 1 – 8 and 10 – 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bruxvoort et al. (U.S. Patent No. 5,958,794) in view of Yamamoto et al. (U.S. Patent No. 5,244,979), Kamikubo et al. (U.S. Patent No. 5,698,618), and Cayton et al. (U.S. Patent App. No. 2003/0032679 A1) for the reasons of record as set forth in Paragraph No. 14 of the Office Action mailed on June 16, 2005.

***Response to Arguments***

**8. The rejection of claims 1 – 4, 7, 8, 10 – 12 and 16 - 19 under 35 U.S.C § 102(a) and/or 102(e) – various Kendall et al. references**

Applicant(s) argue(s) that that the various Kendall et al. references fail to explicitly disclose an embodiment having a superabrasive (i.e. diamond or cubic boron nitride) used with commercially known Solsperse dispersants which read on the claimed dispersant limitations, hence the Kendall et al. references fail to anticipate the claimed invention (*pages 8 – 9 of response*). The Examiner respectfully disagrees.

In all of the Kendall et al. references the list of abrasives is under 20 and diamond and cubic boron nitride are known to be two of the hardest materials known in

the abrasive art. In addition, the Solsperse dispersants are explicitly used in embodiments in these references. As such, the Examiner deems that there is sufficient specificity for the relied upon teachings, since the abrasives are well known superabrasive materials and the commercial dispersant are explicitly used in the disclosed embodiments.

Regarding applicants' argument about the "complex issues" in selecting a dispersant for a particular combination of abrasive and binder, the Examiner maintains that the prior art provides sufficient specificity to anticipate the claimed invention.

**9. The rejection of claims 1 – 8 and 10 - 19 under 35 U.S.C § 103(a) –  
Bruxvoort et al. in view of various references**

Applicant(s) argue(s) that "there is no evidence of record indicating that those of ordinary skill would have been properly motivated to combine one of the dispersants reported by Yamamoto et al., Cayton et al., or Kamikubo et al. into a dispersion taught by Bruxvoort et al., much less a dispersion comprising superabrasives" (*page 9 of response*) and that "the selection of a suitable dispersant for a particular combination of particles and a continuous phase is not a trivial matter". The examiner respectfully disagrees.

The Examiner agrees that the *optimal* dispersant for a particular combination of particles and continuous phase may, indeed, not be a "trivial matter", but the present claims do not recite any measurement of how effective the dispersant functions. I.e. the present claims do not recite that the claimed dispersant is the *optimal* dispersant for a

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particular combination of particle and continuous phase in any manner. The present claims are merely directed to a mixture of a superabrasive and a dispersant, with no claimed limitations directed to how effectively the dispersant functions. As such, even the non-optimal dispersants covered by the prior art, provided they fall within the claimed AV, would still read on the claimed invention. In addition, the Examiner maintains that there is sufficient specificity in the prior art teachings, especially given the general knowledge in the art regarding the fact that diamond and cubic boron nitride are superabrasive materials, to select the claimed abrasive material for use in the Bruxvoort et al. abrasive article.

Finally, applicants argue that the present claims are commensurate in scope with the showing of unexpected results (*page 10 of response*). The Examiner respectfully disagrees.

First, applicant(s) are reminded that **a detailed description of the reasons and evidence** supporting a position of unexpected results must be provided **by applicant(s)**. A mere pointing to data requiring the examiner to ferret out evidence of unexpected results **is not sufficient** to prove that the results would be truly unexpected to one of ordinary skill in the art. *In re D'Ancicco*, 439 F.2d 1244, 1248, 169 USPQ 303, 306 (1971) and *In re Merck & Co*, 800 F.2d 1091, 1099, 231 USPQ 375, 381 (Fed. Cir. 1986). Second, the Examiner notes that, as argued extensively by applicants, "the selection of a suitable dispersant for a particular combination of particles and a continuous phase is not a trivial matter". The present claims are directed to an extremely broad continuous phase ("comprising a reactive curing binder precursor")

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when the supplied examples are directed to a relatively narrow selection of continuous phases, and the claimed dispersant ranges in AV, MW and amine value are all open ended, yet the relied upon examples are only directed to a relatively narrow range in discreet AV, MW or amine values. I.e. applicants have not provided sufficient evidence that a dispersant with an AV of near infinity would behave the same as one near 4.5, yet claim 1 covers both embodiments.

### ***Conclusion***

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

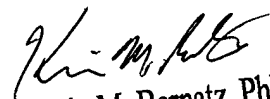
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin M Bernatz whose telephone number is (571) 272-1505. The examiner can normally be reached on M-F, 9:00 AM - 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on (571) 272-1284. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KMB  
December 19, 2005

  
Kevin M. Bernatz, PhD  
Primary Examiner